

DOUBLE CROPS AND HOW TO RAISE THEM



Vegetables From a Southern Garden Exhibited at a State Fair.

(By M. COVERDELL.)

While two crops a season on a piece of ground will bring double profit, there is, of course, a corresponding double amount of vitality sapped from the soil and the frequent application of a good fertilizer is imperative, lest the ground soon become thin and unproductive.

In the garden one may utilize for second and even third crops the beds in which early peas, beans, radishes and lettuce were grown.

The same is true of the early sweet corn. It is advisable not to plant the same article twice in the same spot in succession, but rotate the products, the same as in field rotation of crops.

A well-prepared seedbed at each planting is almost essential, and a sprinkling of fine, rich manure will prove very beneficial to the growing plants and in maintaining soil fertility.

Sow oats as early as possible, mow them for just a few days in advance of the time they would be reaped for the grain; remove them from the field as soon as they are sufficiently cured and stack well for future feeding purposes.

Then put as many teams in the field as can be spared. Stir the ground quickly and thoroughly, immediately sowing it to millet.

Usually, the millet may be mown and stacked early in September and the field hurriedly cultivated and sown to rye, which will make excellent fall pasture at a time when it is most needed.

The wheat or rye fields may be utilized in the same manner, and being somewhat earlier, is better adapted to growing double crops than the oats stubble.

The potato patch may be made to double its profits by sowing it to millet, cane or kafir corn after it has been laid by. Sowing the ground to some other product also yields the beneficial influence of keeping down the weed pests which always bob up after you stop plowing the potato vines and which, where unmolested, furnish millions of seeds for propagating a rank and troublesome growth of weeds the next season, beside helping to drain the soil of its fertility.

Or if one will dig the potatoes from the early patch they will bring a high price at that season and the ground may be sown to rape for hog pasture.

We have seen fine corn growing between the rows of early potatoes after they had been laid by.

Late tomatoes, cabbages and turnips also may be raised among the potato vines as successfully as though they occupied the plot by themselves.

TO DESTROY BOLL WEEVILS

Device Arranged to Knock Insects Off Cotton Plants and Are Killed by Poisonous Fluid.

This device is intended mainly for destroying the boll weevils that infest cotton plants. Each hood is provided with an opening at front and rear and with a slotted bottom, so that the bolls



Boll-Weevil Destroyer.

traverse the interior of the hood. The weevils are knocked off the bolls by flaps inside the hood and fall into oil or other destructive liquid carried in receptacles at the bottom of the hood.—Popular Mechanics.

STOCK, LEGUMES AND COTTON

Best Results Obtained When Combination Is Practiced—Rightly Called Good Farming.

The Progressive Farmer has never, for the average southern farmer, taken any stock fit the agitation for live stock as a substitute for cotton, and we are glad to see the fact is coming more and more to be recognized that live stock should have a place on every farm, but seldom if ever can live stock farming exclusively be made the most profitable. Just as all-cotton farming is a badly balanced, unprofitable business, so is it unsafe and certainly not conducive to the maximum possible profits to attempt to raise live stock exclusively. The best results are to come only when live stock, legumes, grain and cotton are so combined that all food and feed for man and beast are produced and soil fertility is maintained. This and this alone can rightly be called good farming and good farm management.—Progressive Farmer.

NUMBER OF EGGS DECREASED

Laying Men Will Not Keep Up Laying If Unprotected From Sun—Other Fowls Also Suffer.

Improper protection from sun and heat causes the laying hens to drop off in the number of eggs. The old birds of every kind suffer if not properly protected by shade. Orchard and forest trees furnish excellent protection.

FACTS ABOUT INSECTS

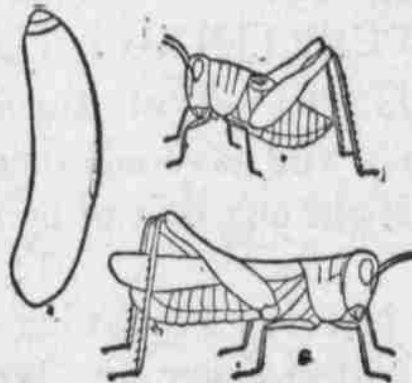
Farmer Should Learn History of Different Pests.

Necessary to Know Something of Habits, Enemies, and Remedies in Making Successful Fight—Grasshopper Most Injurious.

(By Z. P. METCALF.)

In order that the farmer may successfully combat the different insects which injure his crops, it is necessary to know something regarding insects in general, their life-histories, habits, enemies, and the remedies that may be used against them successfully.

Briefly, insects may be divided into two classes. One develops from the egg to the adult without any resting stage. Insects belonging to this class are said to have an incomplete change of form. The other class has a resting stage in its life-history, and insects belonging to this class are said to have a complete change of form. In incomplete change of form there are three stages in the life cycle of the insects. First, the egg, which is laid by the adult and from which an active, usually rapid-growing "nymph" is hatched. This "nymph" is wingless, and from it, without any intermediate resting stage, the winged adult emerges.



Life-History of Grasshopper—A, Egg; B, Nymph; C, Adult.

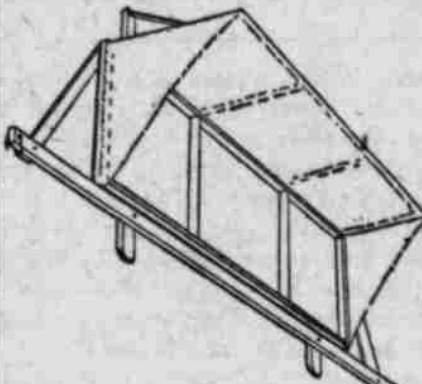
velop. Grasshoppers may be taken as an illustration of insects of this class. The wingless young are familiar objects to everyone. It is this stage of insects with incomplete change of form that are known as "nymphs."

Insects belonging to the second class have four stages in their life-history. Eggs laid by the adults develop into larvae, or worms, as they are commonly known. Hornworms may be taken as an example of this stage in the development of insects of this class. The larvae is the active growing period, and is followed by a resting period which is known, technically, as the "pupa" or "chrysalis." From this pupa, after a length of time, the adult emerges.

It is necessary for the farmer to know the details, the life-history, of the insect he is trying to conquer in order that he may fight it intelligently. Many insects are practically uncontrollable except for a very brief period or a short stage in their life-history.

Take, for instance, the grasshopper. Of all the insect pests which are found in some sections of the West, this is the most destructive, for there it injures the most important industries—agriculture and stock-raising—by invading the alfalfa fields.

They usually do the greatest damage to the second crop of alfalfa, for, though they hatch in spring from eggs laid the previous autumn, the young hoppers do very little apparent injury to the first crop. As soon as it is cut, however, they are deprived of their abundant supply of green food. The few leaves remaining are quickly destroyed, and with them every opening bud and newly formed leaf. The second crop cannot make a start for the new growth is eaten as fast as it appears. The injured fields sometimes look as bare and brown in midsummer



Successful Type of Horse-Drawn Hopper.

as they are early in spring. In many cases this means the loss of many thousands of dollars' worth of hay.

In some states very little has been done toward preventing this loss; but in Minnesota and Nebraska grasshoppers are fought systematically with considerable success.

Grasshoppers in alfalfa fields may be held in check in ordinary years by plowing late in the fall the waste lands where they breed and by disk-harrowing badly infested fields, thus destroying the eggs in the soil.

SEPARATE COOP FOR CHICKS

When Youngsters Stray Into Wrong Pen They Are Likely to Be Killed or Maimed.

Never place a hen with a brood of chicks of a certain color or colors close to a hen with a brood of chicks including other colors, because if the youngsters stray into the wrong coop they are likely to be killed or maimed by the hen.

DWARF APPLE TREE STOCKS

Come Into Bearing Somewhat Earlier Than on Standard Stocks, Says New York Station.

Apple trees propagated on dwarf stocks come into bearing somewhat earlier than on standard stocks. This is the experience of a ten years' study by the New York station. The French paradise stock is somewhat subject to winter-killing. In fact, the injury and loss from this cause was so heavy that conclusions from the experiments cannot be drawn at this time.

There is considerable confusion in the trade between the doucin and the French paradise stocks. The paradise stocks grown by English nurserymen are similar to the doucin stocks grown across the channel.

The growth of the dwarf tree is largely individual. Many varieties throw out roots from the cions, if the union between the stock and the cion is set below the surface of the ground. This makes it necessary to remove the cion roots, otherwise one will get standard or semi-dwarf trees. Then the suckering habit of the dwarf stocks must be contended with.

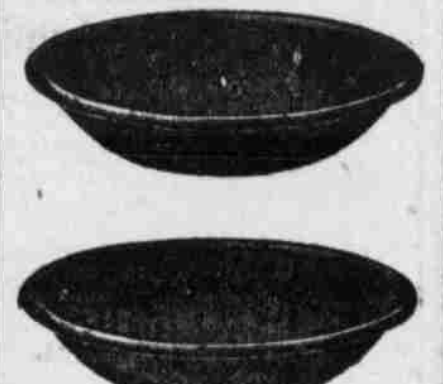
A further disadvantage is the relative shallow rooting system of the dwarf stock so that the trees are likely to be blown over in exposed situations or where high winds prevail. Although these dwarf trees came into commercial bearing somewhat earlier than standards the tests have not yet shown that they are more profitable. The station authorities believe that the dwarf trees are likely to be more valuable to amateur than to commercial growers.

WOODEN NESTS FOR PIGEONS

May Be Secured to Board Slightly Larger Than Pan or Set Directly in the Nest Box.

Some pigeon breeders use nest pans made of wood, wood fiber or earthenware from 3 to 4 inches deep, and 8 to 10 inches in diameter, which may be secured to a board slightly larger than the nest pan or set directly in the nest box, if it is of heavy material.

Some breeders claim that earthenware nests are too cold in winter. Some do without pans by putting a 3-inch strip on the front of the nest to retain the nesting material.



Wood-Fiber Nest Boxes.

Short pieces of hay, straw, pine needles and tobacco stems are used for nesting material. This is kept in an open crate or in a corner of the house where pigeons select and build their own nests.

DRINKING WATER FOR FOWLS

Insanitary Condition Remedied by Use of Old Cheese Box—Good Arrangement for Chicks.

When you go out to supply your fowls with fresh drinking water, is the vessel full of dirt or litter? This insanitary condition used to bother us a lot, even though we used poultry drinking fountains, says a writer in an exchange.

A good remedy follows: Procure an old cheese box and split off the bottom half of it around the sides, then put the fowls' drinking vessel on top of this. It will not take long for you to note a difference in regard to cleanliness.

For small chicks another plan has proved excellent. Fill a basin level full of pebbles slightly smaller than hen's eggs; then sink the basin in the ground, leaving the rim an inch above the surface, and fill with water. The chicks run all over this, yet they cannot push one another into the water and drown, and scarcely being able to get their feathers wet. They drink between the pebbles. The pans are easily cleaned, and the pebbles help keep the water cool for several hours in the summer and warm in the winter.

NUMBER OF EGGS UNDER HEN

In Natural Season Fowl Can Comfortably Cover Fifteen—Much Depends on Time of Year.

The number of eggs to be placed under a hen depends on her size and the season of the year. The usual number a medium-sized hen can comfortably cover in the natural season is 15. During very warm weather this hen perhaps could cover 17 eggs. If possible set two hens at the same time and give all chicks hatched to one hen.

CHOICE BERRIES FOR MARKET

Important Point Is to Get All Ripe Fruit—Overlooked Berries Ripen Very Quickly.

The important point in picking strawberries, and other berries, too, for that matter, is to get all the ripe fruit that is ready for market every day, as overlooked berries are usually corrupted by the following day.

PLANT BETTER TREES

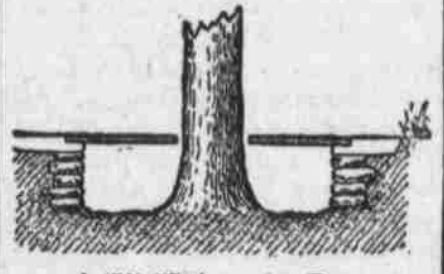
Will Make the Home More Attractive All the Year.

Add to Healthfulness by Cooling and Purifying Air—Leaves Absorb Impure and Hurtful Gases—Prevent Injuries.

(By A. MURRILL.)

The people of this country are developing a finer sense for the beautiful, which finds expression in various activities. These efforts have developed a higher appreciation of beauty and art in the home and with this love of better homes comes the demand for more and better trees, which will make the home more attractive all the year.

Trees add to the healthfulness by cooling and purifying the air. Besides cutting off the direct and reflected rays of the sun, foliage, by evaporating large quantities of water from its surface, exercises a marked effect on the temperature. The reduction of the temperature in this way is greatest on dry, hot days when such reduction is most needed. Leaves also absorb impure and hurtful gases and manufacture the oxygen needed by humans for respiration. Circulation



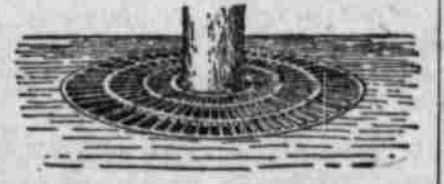
A "Well" Around a Tree.

of the air, due to unequal temperature, is likewise promoted by trees properly pruned and arranged; while the air of basements and cellars is rendered less humid by the removal of surplus water from the surrounding soil and through the medium of roots and foliage. Thus it has been shown that trees better the health conditions. A homestead barren of trees and shrubs does not appeal to the occasional visitor, nor does it influence the family which dwells thereon as it would if the home yard had been adorned with trees, beautiful in form and color, which inspire a constant appreciation of nature.

The trees on city streets suffer most often because of a naturally poor soil and a lack of sufficient water supply. City streets that are macadamized, paved or concreted present a surface layer that shuts off almost completely the natural means by which water may reach the roots, and directs all of the surface drainage into catch-basins and sewers. Thus, trees on such streets are subjected to the extreme of adverse conditions, and their natural vitality and soil adaptation must be such that they can withstand the abnormal strain on their vitality or they are certain to meet with an unnatural and premature death.

Along city streets, where conditions are so often unfavorable to tree growth, the holes for newly planted trees should be filled with loamy soil, and they should be large enough to provide for future root development. A bed 4 feet wide by 8 feet long and 2 feet deep is none too large. In streets which are often congested with people it may not be feasible to leave such a large open space for each tree. In such cases an iron grating can be placed over the area that is not paved. This will prevent the soil from becoming impenetrable to surface water.

Literature on the subject of shade-tree protection will be of the most value when it serves as a means for preventing rather than curing injuries. By far the greater part of the injuries from which trees suffer can be prevented.



Grating to Cover "Well."

vented. When once inflicted, however, it is often very difficult or even impossible to remedy them adequately. In many cases the existing laws are quite sufficient to give all the protection desired. The people should know the laws, and have interest enough in the preservation of trees to insist that they shall be obeyed. The most successful plan for large towns seems to be to place the care of street trees directly in charge of a commission or park board empowered by special ordinances to carry out its plans. This gives opportunity for a systematic development of tree culture throughout the entire community and makes it possible to employ experts to direct the work. Similar arrangements can also be adopted in smaller communities with such changes as are necessary to suit local conditions.

MARKETING PEACH AT PROFIT

Biggest Problem in Fruit Business—Considerable Money Must Be Invested in Labor.

Marketing the peach at a profit is the biggest problem in the business. After considering all of the necessary operations in a commercial peach orchard it is apparent that considerable money must be invested in labor. That money is tied up in the crop until marketing time and a large crop often means a large labor expense and a small price per bushel for the fruit.

WHOLE COW'S MILK IS BEST

Calves Raised on Skim Milk Are Usually Runt, Pot-Bellied and Suffer Indigestion.

Calves raised on skim milk are usually runt, pot-bellied, and suffer indigestion. Whole cow's milk is a perfect feed for the calf, but skim milk is not. When the fat is removed a substitute is sometimes made by adding a handful of flaxseed meal or cornmeal, but this sort of fat is not a full substitute for butterfat.

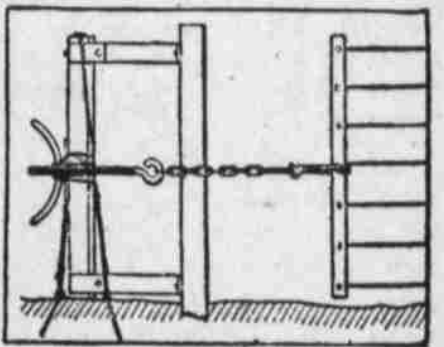
It is still a debatable question whether it pays in the long run to rob the future cow by stunting the calf for the sake of immediate profits. The practice of taking the calf immediately away from the cow is the usual thing in the dairies and, assuming that it is an economical thing to do, the question is how to feed calves on artificial food and keep them growing properly.

During the first few weeks the calf is not capable of digesting normally any food save whole cow's milk. If he must subsist on skim milk, a little flaxseed meal or cornmeal had better be added to the ration. The milk should always be given warm and never when it is frothy. Calves should never be given enough skim milk to entirely satisfy their hunger. If indigestion develops they should be kept on short rations for a day or two. If scours develop a little formalin added to the milk, combined with a restricted diet, will usually control it within a few days.

STRETCHER FOR WIRE FENCE

Upright Standard, Braced From Post, Carries Long Threaded Bolt Connected With Chain.

With the device shown in the illustration woven-wire fences are stretched from the last post. An upright standard, braced from this post, carries a long threaded bolt connected with the chain and hooks. The fence



Fence Stretcher.

is stretched when the nut at the end is tightened by means of the two-handled wrench.—Wisconsin Agriculturist.

ATTENTION TO WORK HORSES

Poor Teeth Will Cause Indigestion, and Ill-Fitting Collars Produce Shoulder Galls.

The teeth and the shoulders of the work horses have to be watched. If the teeth aren't in good shape the food won't be chewed properly. This will result in indigestion, and the animal will soon be in poor condition. Filing away the sharp corners of the teeth will many times correct the trouble.

Ill-fitting and sweat-covered collars will cause shoulder galls. A collar should fit snug against the shoulder, with room enough at the bottom to insert the open hand. Many persons use two sets of collars when the spring work first opens. One set is larger than the other, and is used before the horses have been worked down any; the other after the surplus fat has been worked off and the horses' necks are in working condition. This lessens shoulder trouble.

To treat shoulder galls use a salve made of zinc oxide. It should be applied at night or when the horses are not being worked.

HOW MILK IS PASTEURIZED

Bottle or Mason Jar Is Set on Inverted Pan and Placed in Bottom of Kettle or Pail.

Milk can be pasteurized at home in bottles or in mason jars, says Farm and Home. The bottle or mason jar is set on an inverted perforated piepan, placed in the bottom of a kettle or pail. This holds the milk container away from direct contact with the bottom of the kettle and avoids danger of breakage. A dairy thermometer is essential to success.

The vessel is filled with water up to the neck of the bottle or nearly to the top of the jar or other milk receptacle and the water heated to 150 degrees. The heat is then discontinued. Cover the kettle with a cloth to retain the heat as much as possible and let it stand for half an hour.

At ordinary kitchen temperatures the water will not lose more than five degrees of heat in half an hour. At the end of this time cool the milk rapidly, seal the receptacles if the product is to be kept very long and you may feel reasonably sure of a safe food.

ADJUSTMENT OF THE BRIDLE

Should Be Arranged to Bring Blinds Opposite Eyes—Bit Rests on Bars of the Mouth.

Bridles should be adjusted to bring the blinds (if they are used) opposite the eyes, and the bit should rest upon the bars of the mouth (directly opposite the slight depression in the lower jaw, in which the curb chain bears).